

I claim:

1. A pressure-sensitive variable-conductance<sup>analog</sup> sensor with tactile feedback, comprising;
- a housing;
- 5 at least two conductive elements fixed to said housing and in-part within said housing;
- a depressible actuator retained by said housing and in-part exposed external to said housing;
- a resilient snap-through dome-cap positioned within
- 10 said housing and depressible with force from said actuator applied to said dome-cap to cause said dome-cap to snap-through and create a tactile feedback;
- pressure-sensitive variable-conductance material within said housing and positioned as a variably
- 15 conductive element electrically between said two conductive elements, and further positioned for receiving force applied to said dome-cap, whereby electrical conductivity of said pressure-sensitive variable-conductance material is altered relative to received force
- 20 and electrical output of said sensor is variable.
2. A pressure-sensitive variable-conductance<sup>analog</sup> sensor with tactile feedback in accordance with claim 1 wherein said two conductive elements are of high and relatively constant conductivity.
3. A pressure-sensitive variable-conductance<sup>analog</sup> sensor with tactile feedback in accordance with claim 2 wherein said pressure-sensitive variable-conductance material is variable in terms of electrical resistivity, the electrical resistivity of said pressure-sensitive
- 25 variable-conductance material lowering with received force thereon.
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4. A pressure-sensitive variable-conductance<sup>analog</sup> sensor with tactile feedback in accordance with claim 3 wherein said housing is formed of non-conductive plastics.

5. An improved pressure-sensitive variable-conductance<sup>analog</sup> sensor of the type having at least two electrically conductive elements operationally connected to pressure-sensitive variable-conductance material; a depressible actuator retained relative to said pressure-sensitive variable-conductance material; said actuator depressible toward said pressure-sensitive variable-conductance material for transferring force into said pressure-sensitive variable-conductance material;

wherein the improvement comprises:

a resilient snap-through dome-cap positioned to provide tactile feedback to a user upon actuation of said pressure-sensitive variable-conductance material.

6. An improved pressure-sensitive variable-conductance<sup>analog</sup> sensor in accordance with claim 5 wherein said snap-through dome-cap is positioned between said actuator and said pressure-sensitive variable-conductance material.

7. An improved momentary-On snap-through switch package of the type having a housing; at least two conductive elements fixed to said housing and in-part within said housing and at least in-part exposed external of said housing; a resilient snap-through dome-cap positioned within said housing; a depressible actuator retained by said housing and in-part exposed external to said housing; said actuator depressible for depressing said dome-cap and creating a highly conductive electrical path between said two conductive elements;

wherein the improvement comprises:

pressure-sensitive<sup>analog</sup> variable-conductance material within said housing and positioned for creating a variably

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conductive electrical path between said two conductive elements upon variable depression of said dome-cap.

8. A pressure-sensitive<sup>analog</sup> variable-conductance sensor with tactile feedback in accordance with claim 7 wherein  
 5 said pressure-sensitive variable-conductance material is variable in terms of electrical resistivity, the electrical resistivity of said pressure-sensitive<sup>analog</sup> variable-conductance material lowering with received force thereon.

9. A method of manufacturing a pressure-sensitive<sup>analog</sup> variable-conductance sensor with tactile feedback,  
 comprising the steps of:  
 a) forming two conductive elements;  
 b) forming a housing engaging said two conductive  
 15 elements, and leaving a portion of said two conductive elements exposed external of said housing;  
 c) installing pressure-sensitive<sup>analog</sup> variable-conductance material positioned as a variably conductive element electrically between said two conductive elements;  
 20 d) installing a resilient tactile feedback dome-cap positioned within said housing and operationally associated with said pressure-sensitive variable-conductance material;  
 e) installing an actuator in-part within said housing  
 25 and in-part exposed external of said housing and positioned for transferring externally applied force onto said actuator through said dome-cap and onto said pressure-sensitive variable-conductance material.

10. An improved method of manufacturing a sensor of  
 30 the type comprising the steps of: forming two conductive elements; forming a housing engaging said two conductive elements, and leaving a portion of said two conductive elements exposed external of said housing; installing an

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actuator in-part within said housing and in-part exposed external of said housing; installing a resilient snap-through dome-cap positioned within said housing;

wherein the improvement comprises the step of:

5 installing pressure-sensitive <sup>analog</sup> variable-conductance material positioned as a variably conductive element electrically between said two conductive elements.

11. An improved method of manufacturing a pressure-sensitive <sup>analog</sup> variable-conductance sensor, comprising the

10 steps of: forming two conductive elements; locating pressure-sensitive variable-conductance material positioned as a variably conductive element electrically between said two conductive elements; positioning an actuator for transferring externally applied force onto

15 said pressure-sensitive <sup>analog</sup> variable-conductance material;

wherein the improvement comprises the step of;

positioning a resilient tactile feedback dome-cap operationally associated with said pressure-sensitive variable-conductance material.

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